

LISTING OF CLAIMS

1. (Currently Amended) A blood set for use in an extracorporeal blood transporting process, which set comprises set tubing having two ends with a patient connector on one end thereof and having a first branch tube for connection with a source of physiological solution, said first branch tube connecting with said set tubing between the ends thereof, said first branch tube communicating in branching relation with a second connector which is in removable, sealed connection with the patient connector, whereby said set comprises a closed loop of tubing.
2. (Original) The set of Claim 1 which carries a length of roller pump tubing as an integral part of the set tubing.
3. (Original) The set of Claim 2 in which said first branch tube connects with the set tubing at a position adjacent to one end of the roller pump tubing.
4. (Original) The set of Claim 1 in which said first branch tube connects with the set tubing at a position between said patient connector and a degassing chamber carried in communication with the set tubing between the ends of the set.
5. (Original) The set of Claim 1 in which said first branch tubing connects with the set tubing by connection to a degassing chamber carried as part of said set tubing and in communication with said set tubing between ends of the set.
6. (Original) The set of Claim 1 in which said first branch tube carries a connector on an outer end thereof for a container of physiological solution.
7. (Original) The set of Claim 1 in which said first branch tube is permanently and integrally connected to said set.

8. (Previously Presented) The set of Claim 1 in which said patient and second connectors each have a minimum flow-through bore diameter of at least 2 mm.

9. (Previously Presented) A blood flow set for use in an extracorporeal blood transporting process, which set comprises set tubing for primary blood flow therethrough and having a patient connector on one end thereof, said set having a first branch tube extending from said set tubing for connection with a source of physiological solution, said first branch tube communicating in branching relation with a second connector, said second connector being capable of sealing connection with said patient connector, whereby said set may be formed into closed loop of tubing by connection of the patient connector with the second connector after use to facilitate rinse-back of blood.

10. (Original) The set of Claim 9 in which said set tubing carries a length of roller pump tubing as an integral part of the set tubing.

11. (Original) The set of Claim 9 in which said patient and second connectors each have a minimum flow - through bore diameter of at least 2 mm.

12. (Original) The set of Claim 11 in which said first branch tube connects with the set tubing at a position between said patient connector and a degassing chamber carried in communication with the set tubing between the ends of the set.

13. (Original) The set of Claim 9 which carries a length of roller pump tubing as an integral part of the set tubing, and said first branch tube connects with the set tubing at a position adjacent to one end of the roller pump tubing.

14. (Previously Presented) The set of Claim 9 in which a degassing chamber is carried in communication with the set tubing between the ends of the set, said first

branch tube connecting with the set tubing at a position between the patient connector and the degassing chamber.

15. (Original) The set of Claim 9 in which said second connector communicates in branching relation with said first branch tube by connection with further branch tubing having branching connection with said first branch tube.

16. (Original) The set of Claim 9 in which said set tubing carries a length of roller pump tubing as an integral part of the set tubing and in which said patient connector and second connector each have a minimum flow-through bore diameter of at least 2 mm.

17. (Original) The set of Claim 16 in which said first branch tube connects with the set tubing at a position adjacent to one end of the roller pump tubing.

18. (Original) The set of Claim 16 in which said first branch tube connects with the set tubing at a position between said patient connector and a degassing chamber carried in communication with a set tubing between the ends of the sets.

19. (Previously Presented) The set of Claim 16 in which a degassing chamber is carried in communication with the set tubing between the ends of the set, said first branch tube connecting with the set through said degassing chamber.

20. (Original) The set of Claim 19 in which said first branch tube connects with said degassing chamber through a top portion of said degassing chamber so as to communicate with an air bubble in said degassing chamber during use.

21. (Original) The set of Claim 16 in which said second connector communicates in branching relation with said first branch tube by connection with further branch tubing having branching connection with said first branch tube.

22. (Previously Presented) The set of Claim 16 in which said patient connector and said second connector are in removable, sealed connection, whereby said set comprises a closed loop of tubing.

23. (Previously Presented) The method of ending a process of extracorporeal blood treatment using a blood-filled tubular set, said set comprising set tubing having a patient connector on an end thereof in blood flow connection with a patient and a first branch tube branching from said set tubing in connection with a source of physiological solution, said first branch tube connecting with said set between ends thereof, said first branch tube communicating in branching relation with a second connector capable of sealing connection with said patient connector;

said method comprising the steps of:

disconnecting the patient connector from the vascular system of the patient;
connecting the patient connector with the second connector to form a closed loop of tubing;

and passing said physiological solution from said source into said set tubing with flow through said second connector and said patient connector, to replace blood in said set tubing with said solution.

24. (Previously Presented) The method of claim 23 in which in said second connector is carried by further branch tubing, which further branch tubing connects with said branch tube in branching relation thereto.

25. (Previously Presented) The method of claim of 23 in which said tubular set has an end opposed to the patient connector, said opposed end being connected to

a flow path leading to the vascular system of the patient, whereby, as blood is replaced by solution in said tubular set, said blood flows through the flow path back to the patient.

26. (Previously Presented) The method of claim 25 in which most of said flow of the solution passes through the second connector and patient connector.

27. (Previously Presented) The method of claim 25 in which a portion of said solution passes from said first branch tube directly to said set tubing.

28. (Previously Presented) The method of claim 23 further comprising the step of occluding flow through said first branch tube at a first point between said second connector and said set tubing, to temporarily cause of all of said solution flow from said solution source to pass through said second connector, said patient connector, and then through said set tubing.

29. (Previously Presented) The method of claim 28 in which said second connector is carried by further branch tubing, which further branch tubing connects with the first branch tube in branching relation, further in which said tubular set has an end opposed to the patient connector, said opposed end being connected to a flow path leading to the vascular system of the patient, whereby, as blood is replaced by solution in said tubular set, said blood flows through said flow path back to the patient.

30. (Previously Presented) The method of claim 29 in which most of said flow of the solution passes through second connector and the patient connector.

31. (Previously Presented) The method of claim 29 in which a portion of said solution passes from said first branch tube directly to said set tubing.

32. (Previously Presented) The method of claim 23 in which said method follows a priming step in which the patient connector and the second connector are

connected together to form a closed loop of tubing, a priming solution is passed from a solution source through said first branch tube, the second connector, and the patient connector, to fill them and the set tubing with said solution, followed by disconnecting the patient connector, and subsequent connection of the patient connector with the vascular system of a patient.

33. (Previously Presented) The method of claim 23 in which each of said connectors has a minimum flow-through bore diameter of at least about 2 mm.

34. (Previously Presented) A method of extracorporeal blood treatment using a tubular set comprising set tubing having a patient connector on an end thereof for blood flow connection with a patient and a first branch tube branching from said set tubing for connection with a source of physiological solution, said first branch tube connecting with the set between ends thereof, said first branch tube communicating in branching relation with a second connector capable of sealing connection with said patient connector; said method comprising the steps of: connecting the patient connector to the vascular system of the patient while said tubular set is filled with said physiological solution; passing blood from the vascular system of the patient between an extracorporeal blood treatment device and the vascular system of the patient; thereafter disconnecting the patient connector from the vascular system of the patient; connecting the patient connector with the second connector to form a closed loop of tubing; and passing said physiological solution from said source into said set tubing with flow through said second connector and said patient connector, to replace blood in the said set tubing with said solution.

35. (Previously Presented) The method of claim 34 in which said tubular set has an end opposed to the patient connector, said opposed end being connected to a flow path leading to the vascular system of the patient, whereby, as blood is replaced by solution in said tubular set, said blood flows through the flow path back to the patient.

36. (Previously Presented) The method of claim 34 in which said method follows a priming step in which the patient connector and the second connector are connected together to form a closed loop of tubing, priming solution is passed from a solution source through said first branch tube, the second connector, and the patient connector, to fill the set tubing with said solution, followed by disconnecting the patient connector, and subsequent connection of the patient connector with the vascular system of a patient.

37. (Previously Presented) The method of claim 34 in which each of said connectors has a minimum flow-through bore diameter of at least about 2 mm.

38. (New) A blood set for use in an extracorporeal blood transporting process, which set comprises:

- set tubing having two ends;

- a patient connector on one of said ends;

- a first branch tube for connection with a source of physiological solution, said first branch tube connecting with said set tubing between the ends thereof;

- a second branch tube;

- a second connector communicating via said second branch tube in branching relation with said first branch tube, said second connector adapted for removable, sealed connection with the patient connector whereby said set comprises a closed loop

of tubing when said second connector is in removable sealed connection with the patient connector;

said set tubing carrying a length of roller pump tubing as an integral part thereof;

said first branch tube connecting with the set tubing at a position adjacent to one end of the roller pump tubing;

a degassing chamber carried in communication with the set tubing between the ends of the set; and

said first branch tube connecting with said set tubing at a position between said patient connector and said degassing chamber.

39. (New) A blood set as defined in claim 38, in which said first branch tube is permanently and integrally connected to said set.

40. (New) A blood set as defined in claim 38, in which a clamp is carried by said second branch tube.